

Q1  
cont. However, a typical semiconductor laser has its output light of a spot size (about 1  $\mu\text{m}$ ) that is largely different from a spot size of a single-mode optical fiber (about 10  $\mu\text{m}$ ). For this reason, when the semiconductor laser is directly connected with the optical fiber, a great insertion loss is generated due to mode mismatch.

Please replace the paragraph beginning on page 2, line 3, has been amended as follows:

Q2 --The small spot-size of the semiconductor laser gives rise to a problem that a very small displacement of the spot leads to a great increase in the insertion loss. For example, an about 1  $\mu\text{m}$  displacement between the semiconductor laser and the optical fiber may generate as much as a 10 dB excess loss. To solve this problem, a semiconductor laser with a spot-size converter is considered in which a light waveguide having a larger spot-size than that of a semiconductor laser is integrated along with the semiconductor onto the same substrate.--

Please insert the following paragraph on page 33 after line 14:

Q3 --In Figures 5A and 5B, element 3001 is a light waveguide layer which is sandwiched between confinement layers 3002 and 3003.--

### IN THE CLAIMS

✓ Please cancel claims 9-11 without prejudice or disclaimer of the subject matter therein.

Please amend the claims as follows:

- Q4  
sub C1
1. (Amended) A semiconductor laser device with a spot-size converter, comprising: